

The diagram illustrates the architecture of a 10 electronic camera. The system is organized into several functional blocks connected by a central bus (15) and a buffer circuit (20).

- Input Section (11-12):** An **IMAGE CAPTURING ELEMENT** (11) provides input to an **A/D** (12) converter.
- Processing Section (13-14):** The A/D converter feeds into a **REAL-TIME PROCESSING UNIT** (13), which then connects to a **TWO-DIMENSIONAL PROCESSING UNIT** (14).
- Control and Settings (16-19):** An **IMAGE MEMORY** (16) is connected to the bus. An **OUTPUT DESTINATION SETTING CIRCUIT** (14B) is part of the two-dimensional processing unit. An **INPUT SOURCE SETTING CIRCUIT** (19A) is also connected to the bus.
- Image Processing (17A-17B):** The two-dimensional processing unit feeds into a **JPEG DECOMPRESSION UNIT** (17A) and a **JPEG COMPRESSION UNIT** (17B). These units are connected to a **THUMBAIL GENERATING UNIT** (18) and an **IMAGE PLANE SIZE CONVERSION UNIT** (19).
- Buffer and Storage (20-21):** A **BUFFER CIRCUIT (INCLUDES A PLURALITY OF FIFOs)** (20) acts as a central data hub. It is connected to **NON-VOLATILE MEMORY** (26A), **MONITOR DISPLAY CIRCUIT** (23), **REMOVABLE MEMORY (MEMORY CARD)** (24), **MPU** (25), **SYSTEM MEMORY** (26), and **AUTOFOCUS CONTROL MECHANISM** (29).
- Output Section (28):** The **PHOTOMETRING MECHANISM (FOR AE/AWB)** (28) is connected to the bus and the MPU.

FIG. 2 OPERATING TIMING FOR IMAGE-CAPTURING (COMPRESSION MODE)

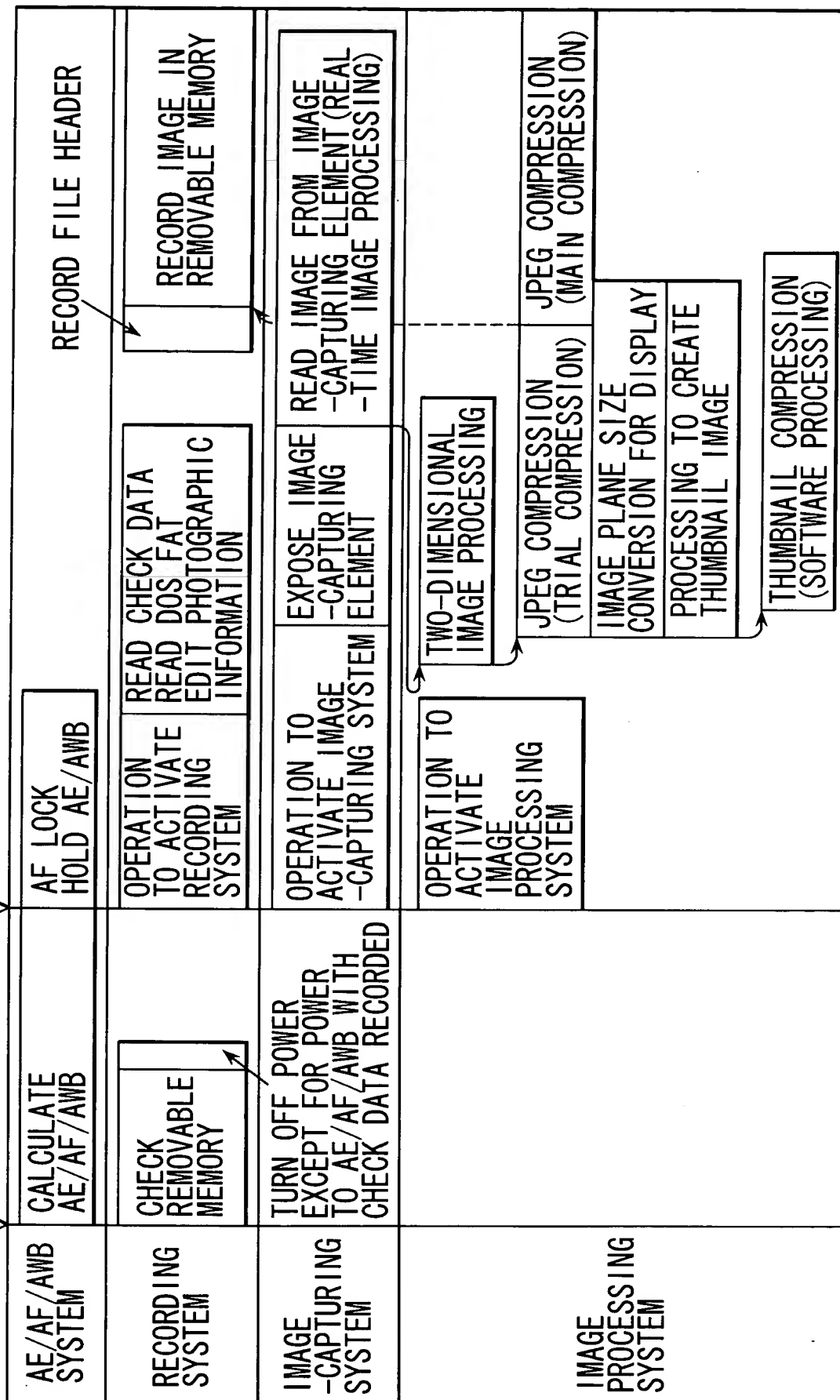
 SHUTTER RELEASE
 PRESSED HALFWAY DOWN
 SHUTTER RELEASE PRESSED
 ALL THE WAY DOWN


FIG. 3A

PIXEL BLOCK REFERENCED
 FOR COLOR INTERPOLATION

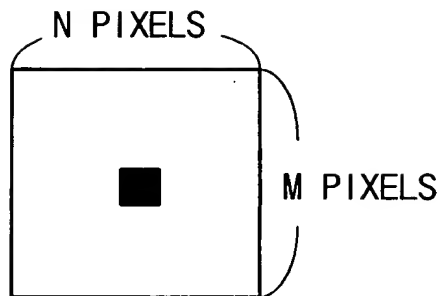


FIG. 3B

PIXEL BLOCK NECESSARY FOR
 COMPRESSING IMAGE DATA FOR
 SINGLE COLOR COMPONENT

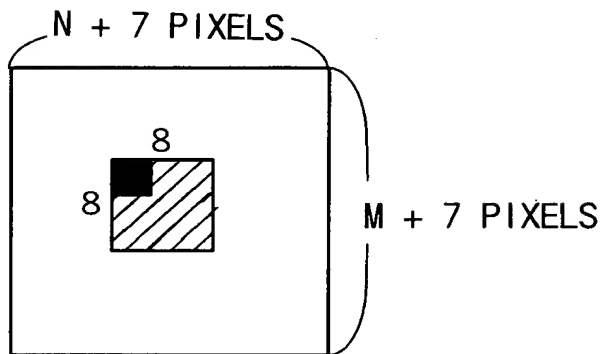
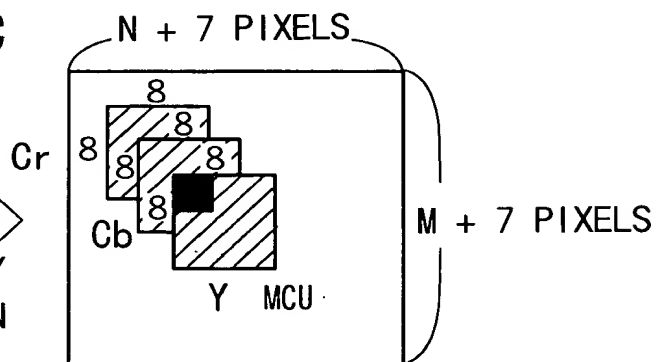


FIG. 3C

PIXEL BLOCK NECESSARY
 FOR 4:4:4 COMPRESSION



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FIG. 3D

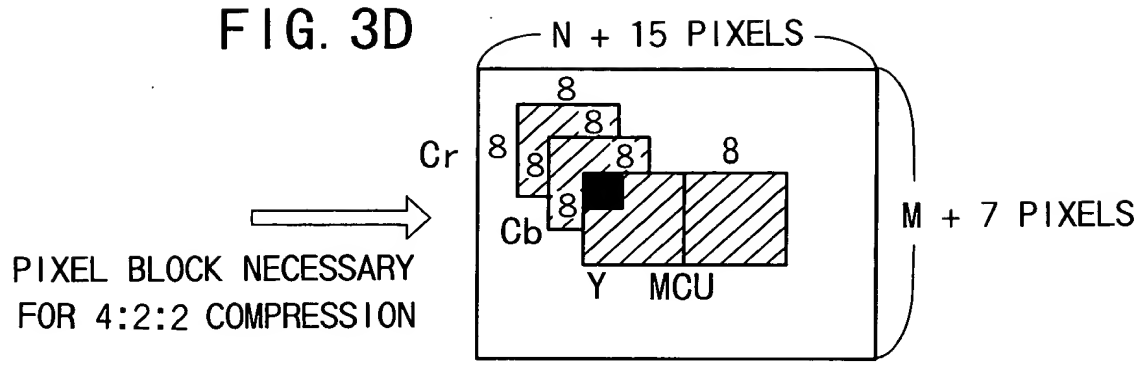
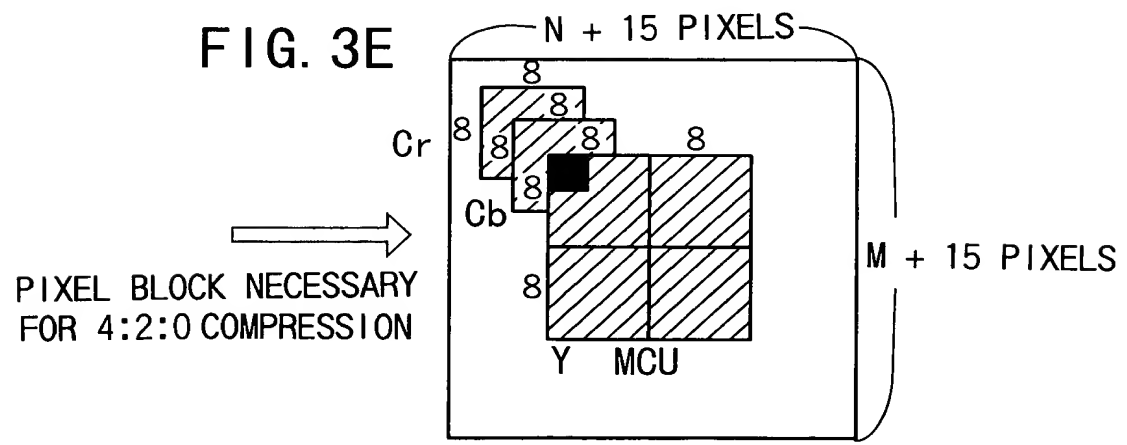


FIG. 3E



009T20-T8250560

SHUTTER RELEASE
PRESSED HALFWAY DOWN

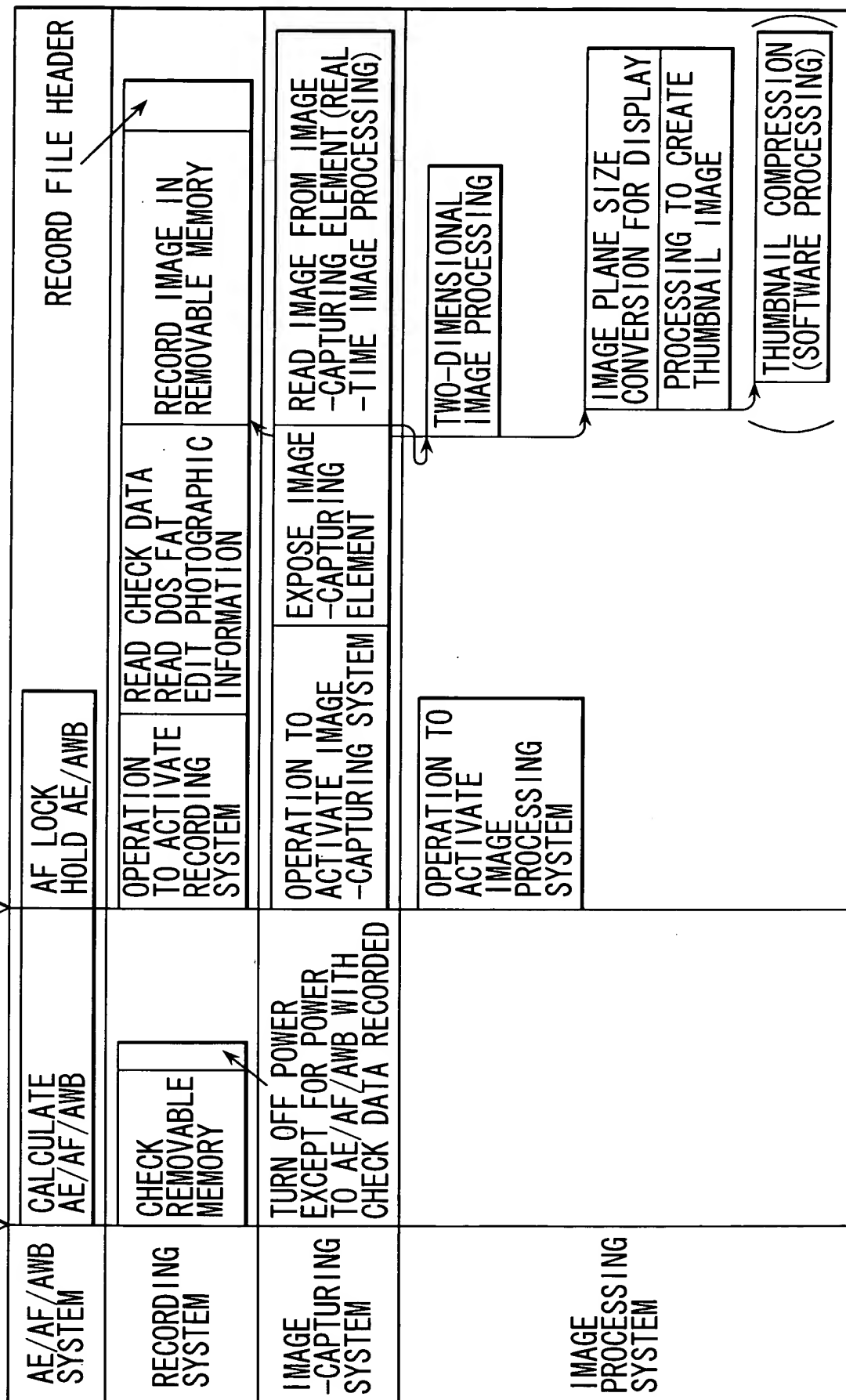
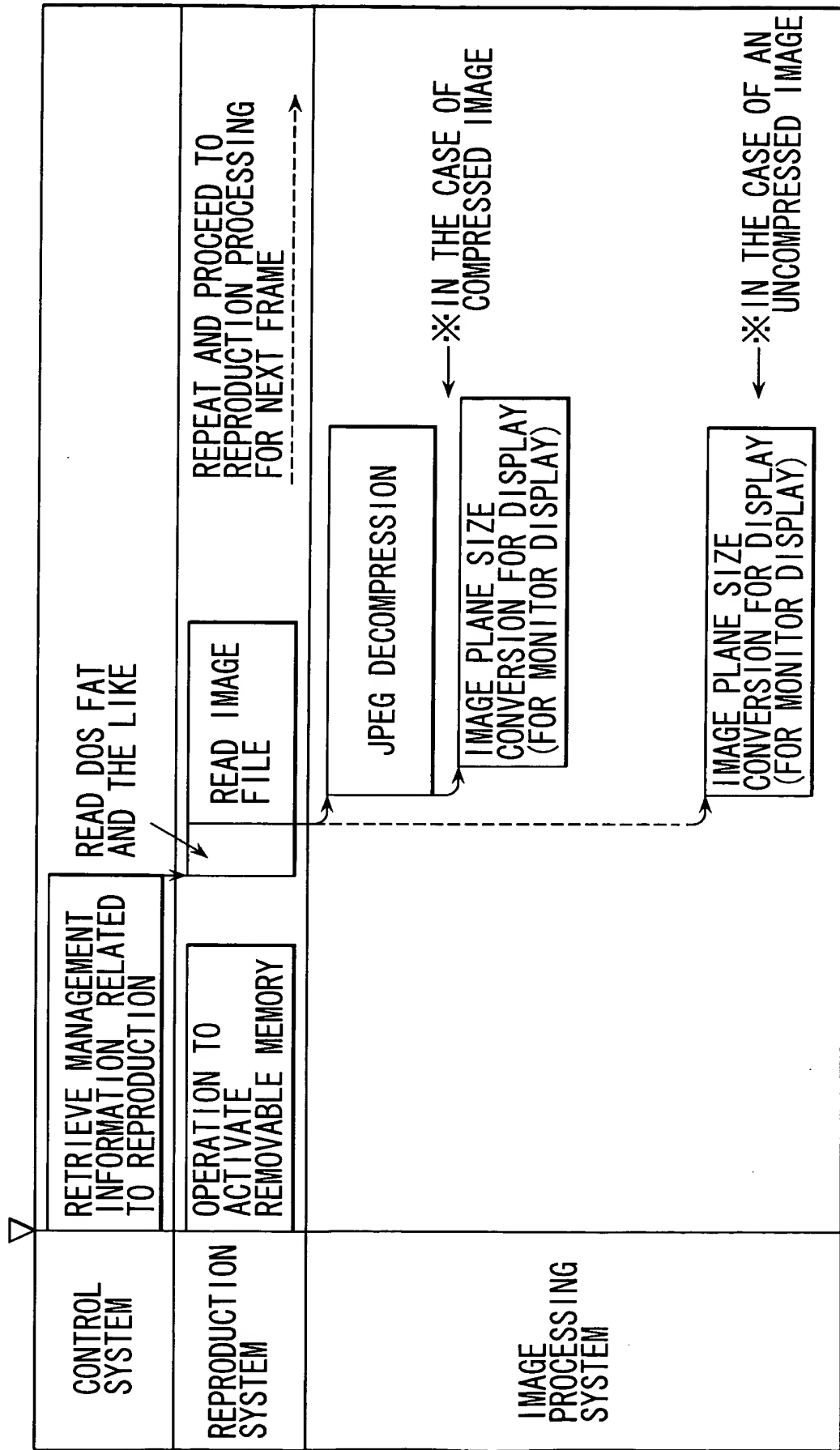


FIG. 5

OPERATING TIMING FOR REPRODUCTION

REPRODUCTION MODE ON



APPROVED
BY
DRAFTSMAN
FIG. 6
SUBCLASS

FIG. 6

PRIOR ART

